



2024 年度

可持续发展报告

天能电池集团股份有限公司





ESG

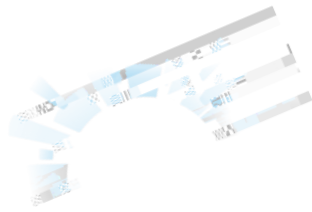
“ ”

- 01
- 03
- 05
- 11
- 15



03

- 85
- 87
- 91
- 93
- 96



2024

4

ESG

2024 1 1 2024 12 31

SDGs

GRI Standards

14 —

13 —

CASS-ESG 6.0

GB/T36001-2015

tn.com/
www.sse.com.cn/

dshbgs@tianneng.com
6029388

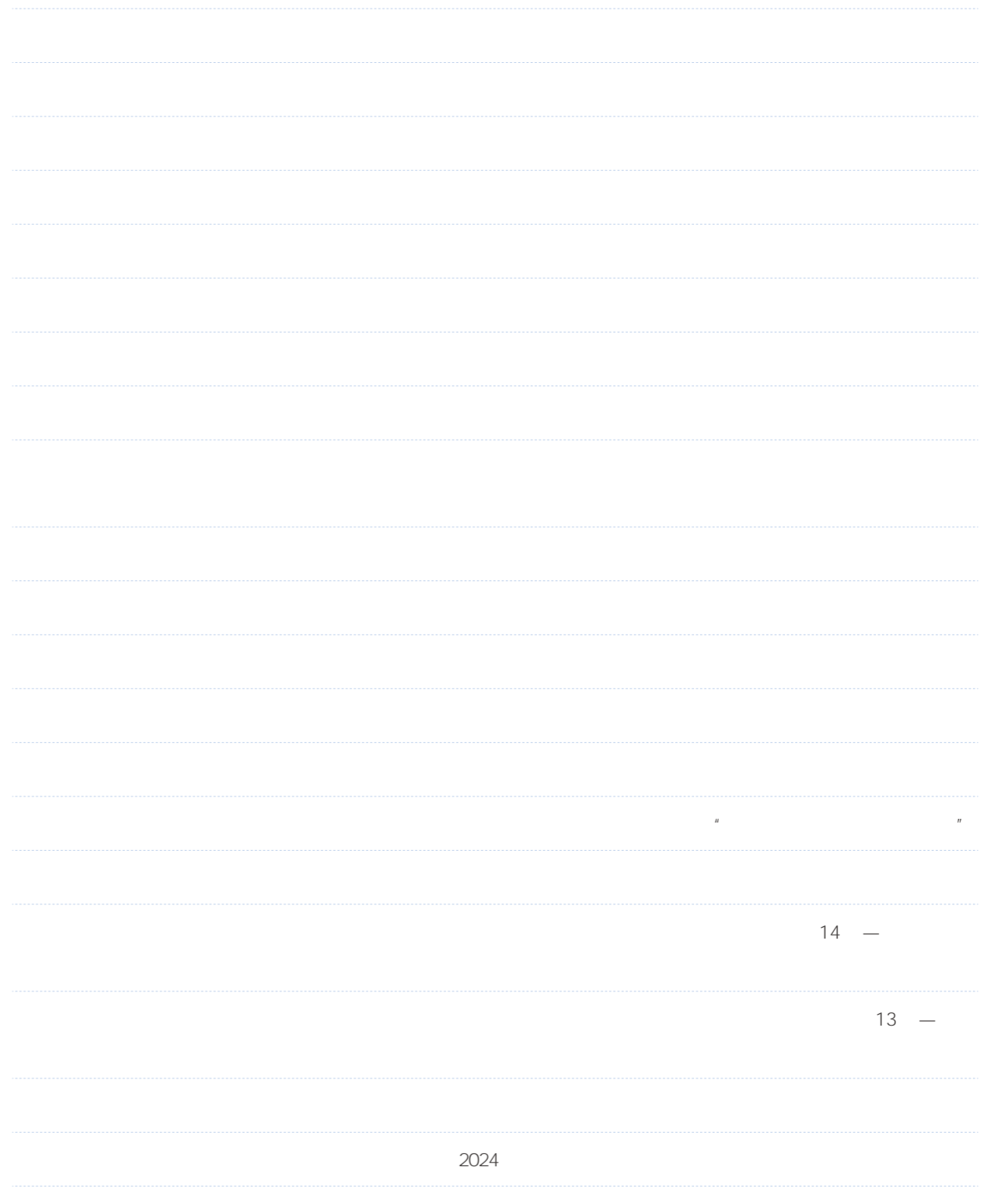
http://www.cn-
http://

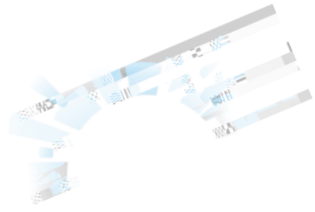
0572-

14 —

13 —

2024





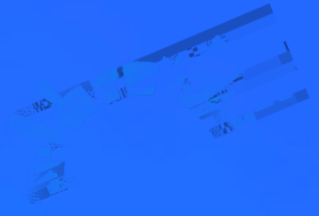
2024

ESG

5G

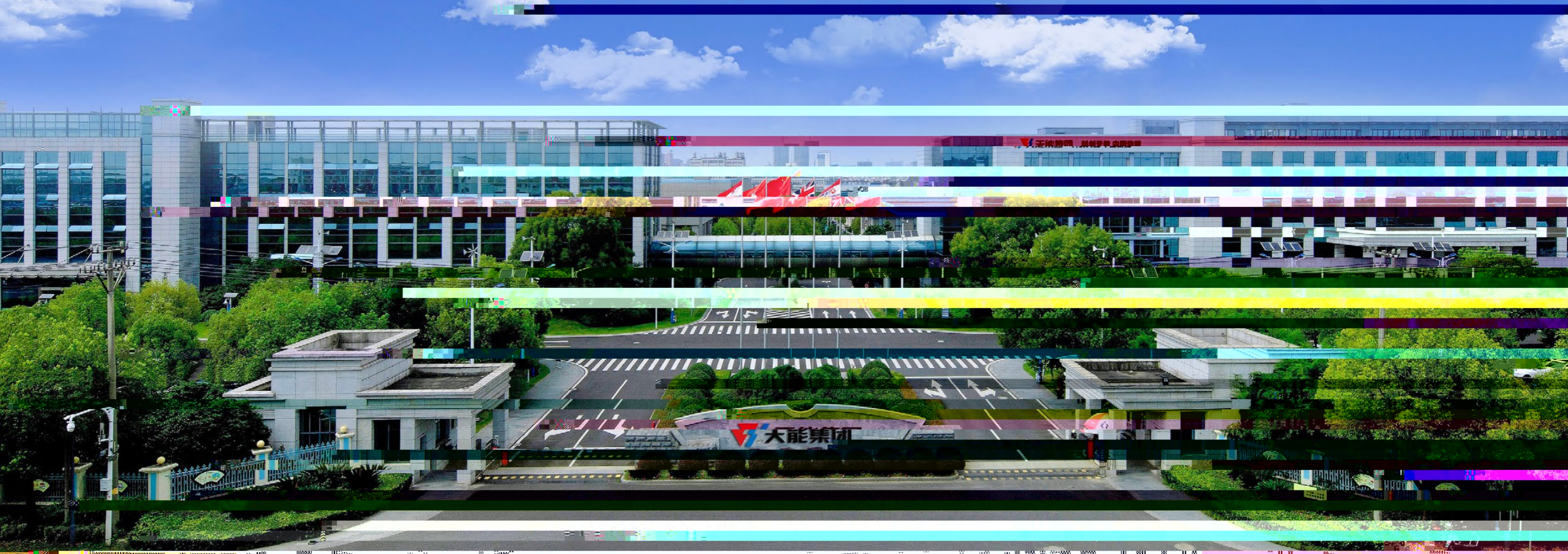
2025





10

500



2024



28 500

2023

2024 500 20

2024

2024

2024

2024



2024

" "

" "

5G 2024 5G

" "

" "

" 2024 "

" "

1 " "

2023

3

3

2024

5 LED

LED (SAINI)

5-6

2023 " "

80kW

384

7 10

10

8 " "

8 " "

9 240MWh

10 " " " "

10

2024

11

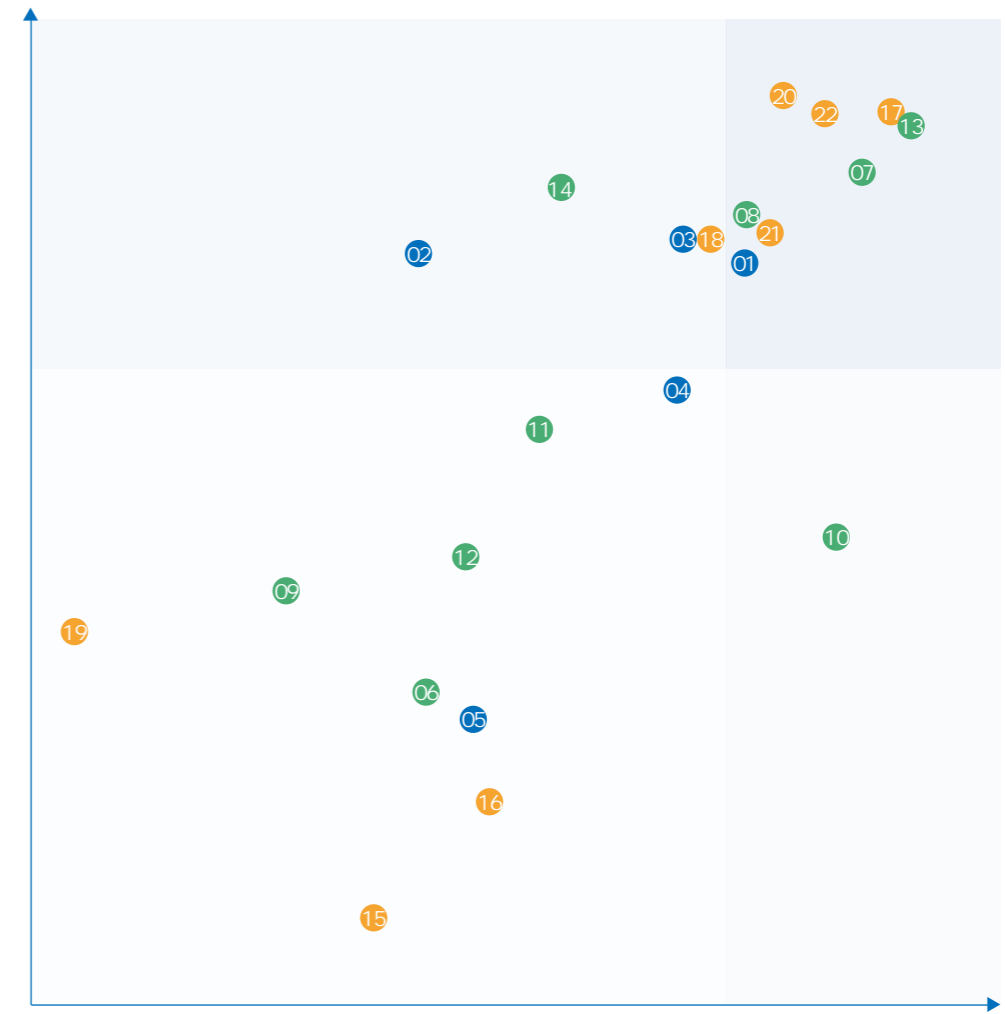
11 5G

2024 5G

" 5G "

11

12



Blue		Green		Orange	
01	*	06		15	
02		07	*	16	
03		08	*	17	*
04		09		18	
05		10		19	
		11		20	*
		12		21	*
		13	*	22	*
		14			

*

围绕“一带一路” 推进全球化布局



2022

2023 11

BEIN



2024 4



2024 6

20



2024 3

Trend* " 2024 Inter Battery & EV COEX



2024 4

135



2024 5

LED (SAINI)



2024 6

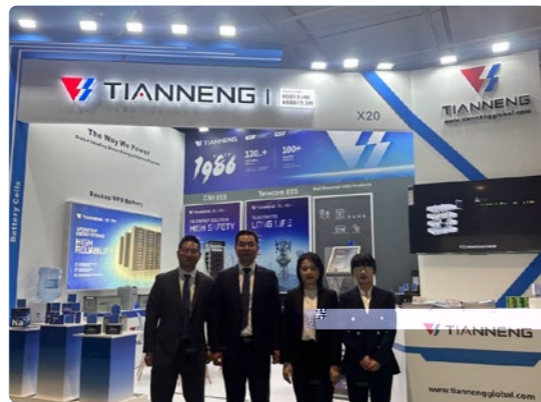


2024 11



2024 10

UPS



2024 10

136



2024 7

Solar Z 2024 ETE



聚能共生

SDGs



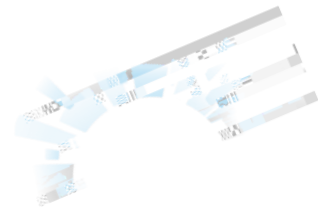
7 经济适用的清洁能源



12 负责任消费和生产



13 气候行动



2024

GB/T32150

101,175

3,705,555

3,806,730 +



4.15		4	60
	400		
24,900	24,900	80%	20%
			19,920
	398.4		11,454
	4,980		49.8
	10,308.6		
1,200			
	18,774.6		448.2
		1,000	1
	365		
	514,373		
	1,000		
5.14			

18,774.6

448.2

5.14



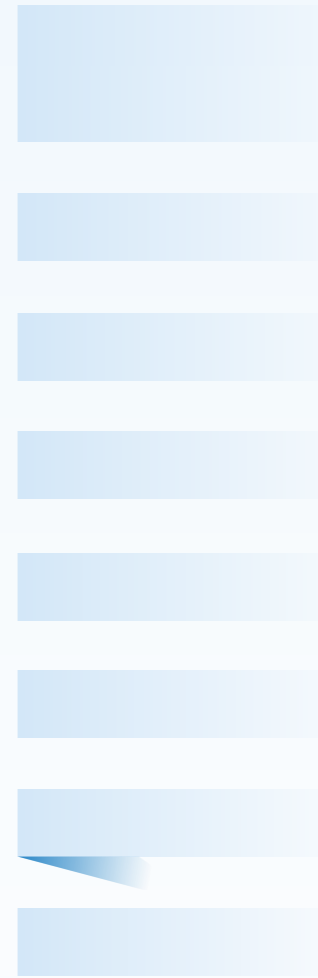
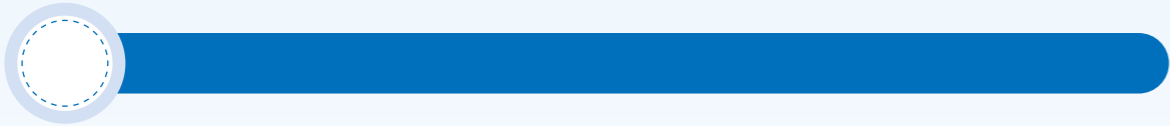
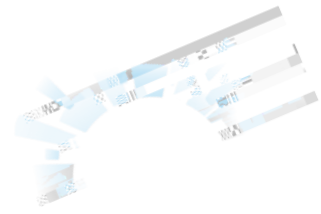


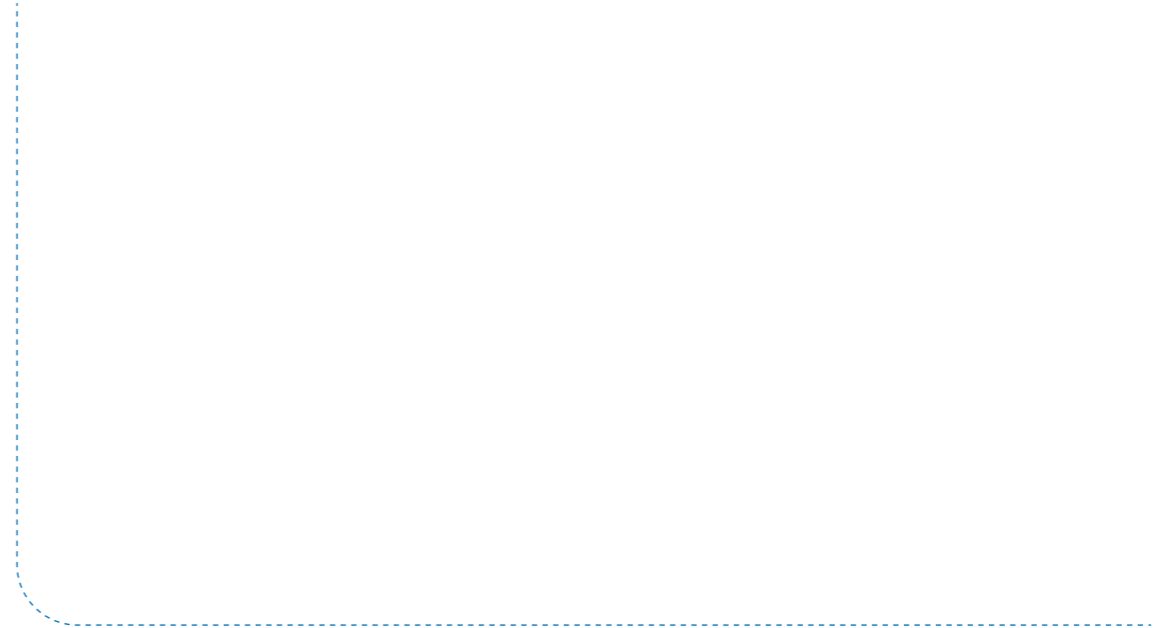
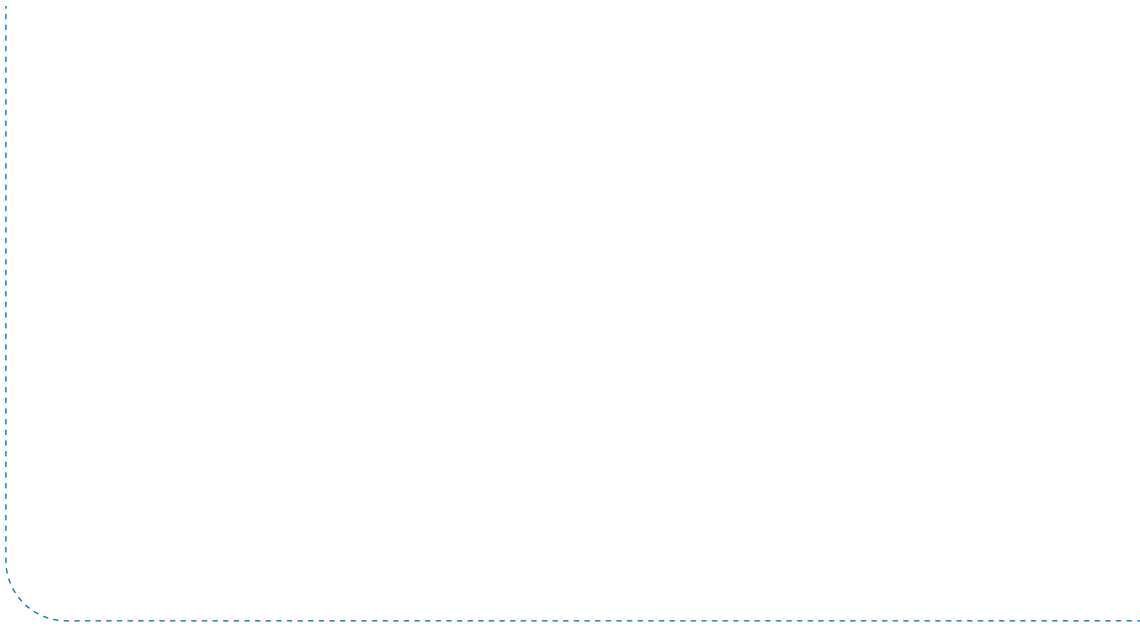
3%-10%



2024 3







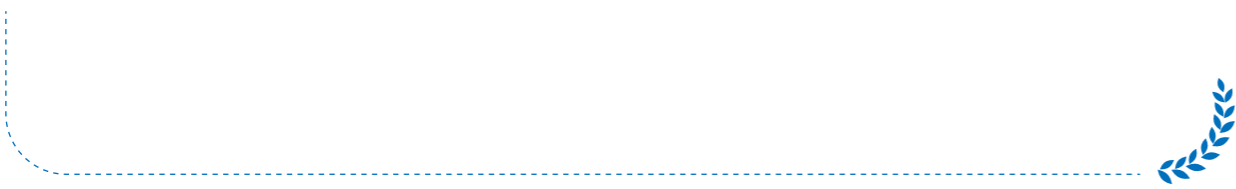


2024 4

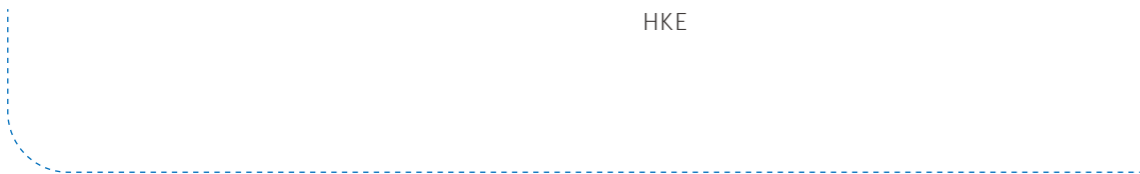


" "

" " +

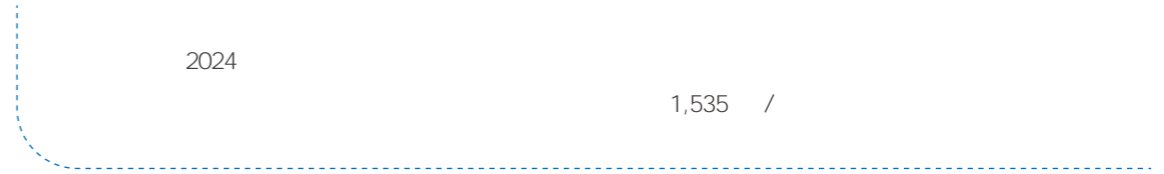


HKE



2024

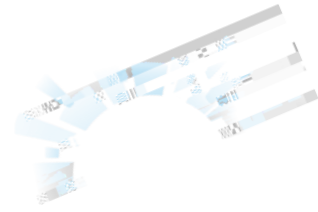
1,535 /



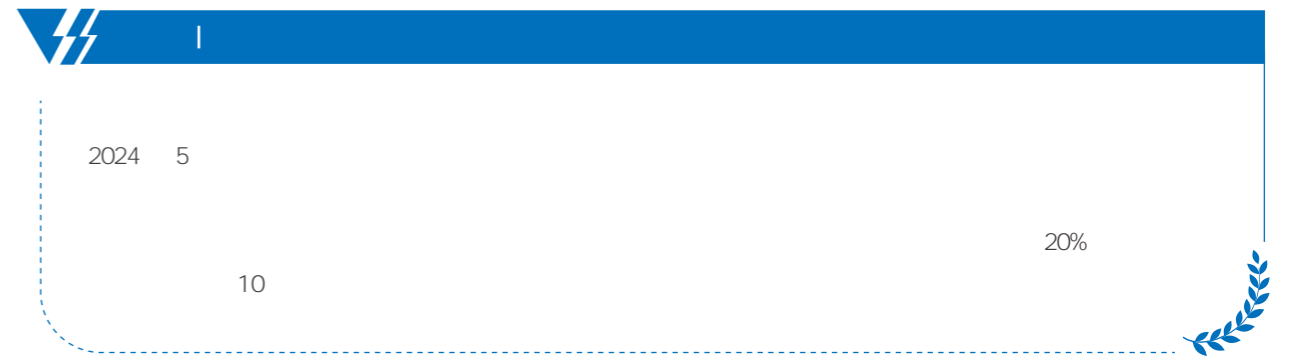
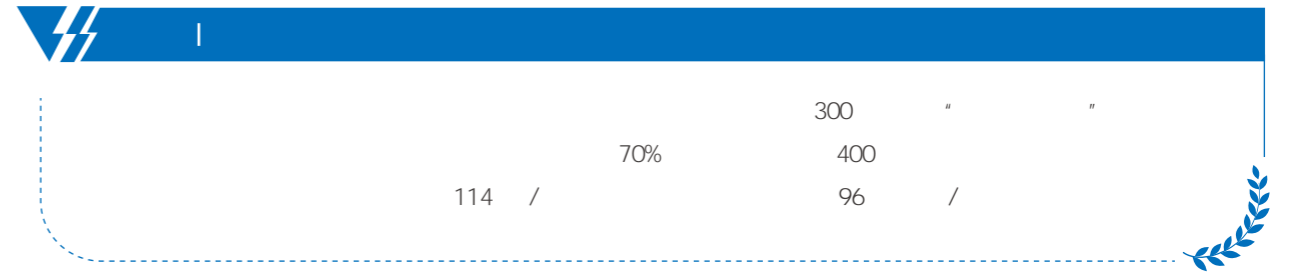
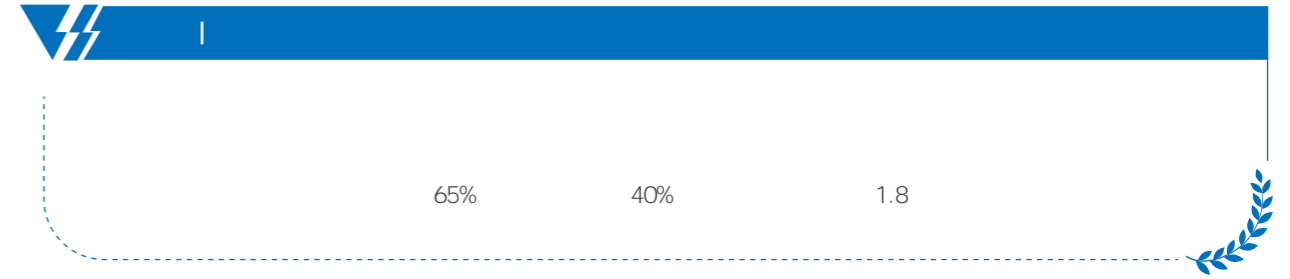
					mg/m ³	/
		5			0.25	0.1459
		1			30	0.24
		1			150	1.98
		1			30	0.1
		1			0.5	0.00998
		34			0.25	0.6677
		2			300	10.73
		1			0.5	0.0053
		1			150	5.625
		1			30	0.281
		11	3	1	2	0.5
			1	2	2	0.26558
		1			0.5	0.0827
		1			150	/
		1			30	/
		11			0.35	0.2286
		1			0.5	0.0067
		1			150	41.683
		1			30	3.764
		5			80	0.0527
		5			180	2.092

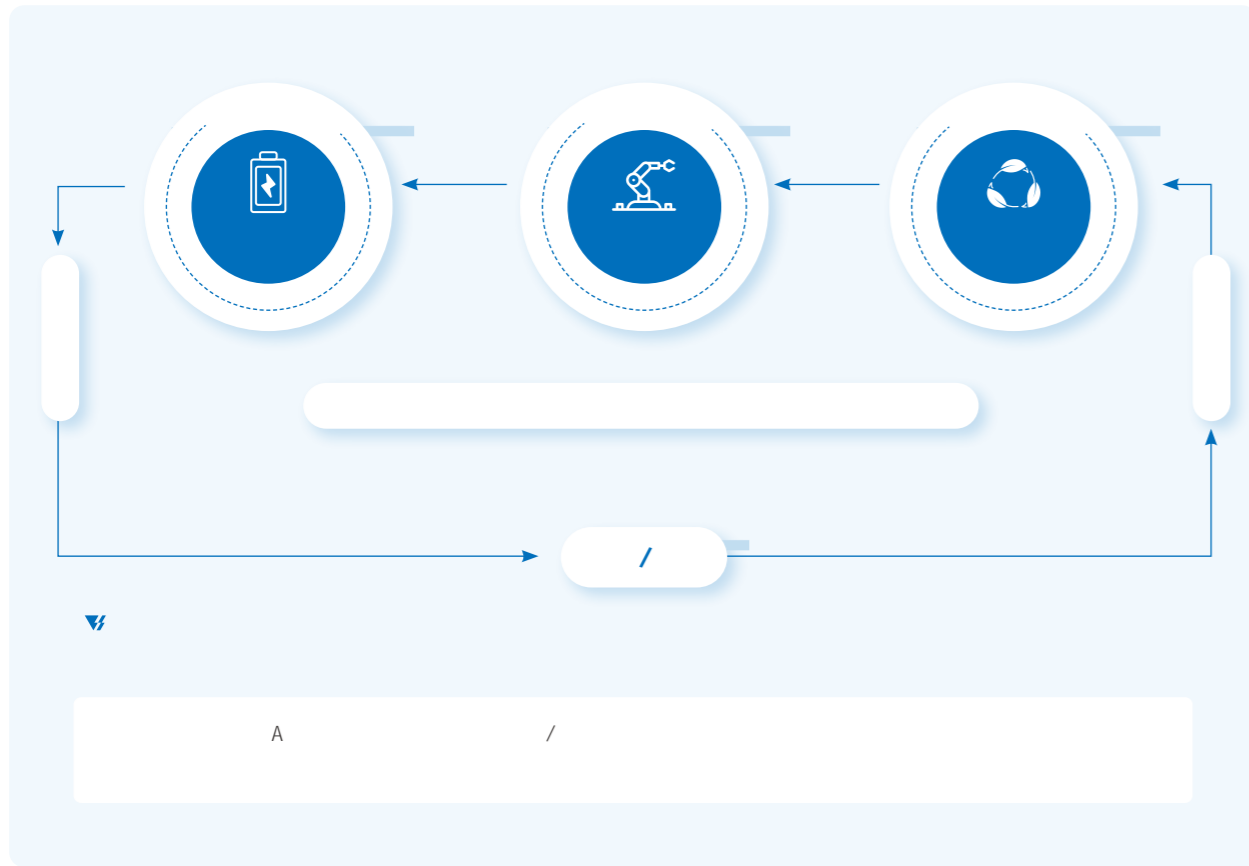
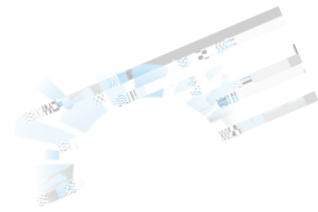
				mg/m ³	/
		6		0.35	0.1713
		1		80	0.017
		1		180	0.687
		8		0.35	0.1825
		5		80	0.052
		5		180	2.055
		8		0.35	0.1819
		1		80	0.02
		1		180	0.787
		18	8 10	0.5	0.6586
				0.5	0.06782
		2		150	/
				30	/
		8		0.5	0.2857
				10	/
		1		50	1.72
				0.5	0.0016
		1		70	2.3
				10	0.3
		27		0.5	0.93975
		1		0.5	0.0061
		1		150	62.028
				30	5.501
		16		0.5	0.888
		10		200	28.0356
				240	
		10		50	6.062
				550	
		1		150	2.75
		1		30	0.44

					mg/m ³	/
			13		0.5	0.2981
			4	+	10	/
				+	50	3.845
					0.5	0.002
			1		150	12.38
					30	1.06
			7		0.5	0.198
			1		0.5	0.042
			1		150	10.944
			1		30	1.177
			11		0.5	0.2211
			1		0.5	0.0123
			1		150	/
			1		30	/
			9		0.5	0.6178
					50	0.535
			1		50	1.0432
					200	0.236
			1		300	1.481
					150	10.0417
			1		30	0.726
			1		0.5	0.0349

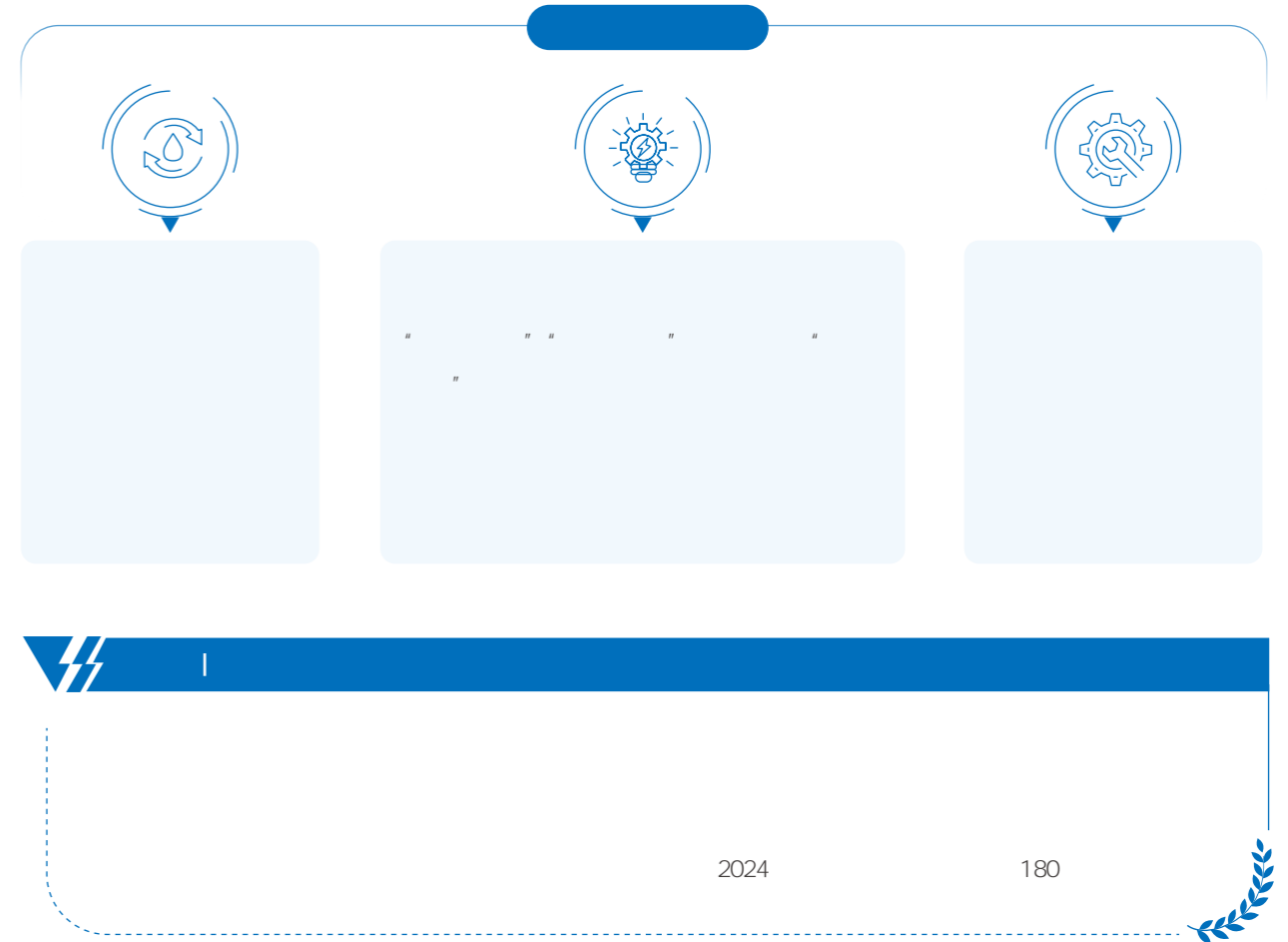


	2024
	543,580
	55,561
	413,410
	64,156
	663
	353
	9,437





811.85	528.52
	0.04 kWh



26,400	
90%	60%

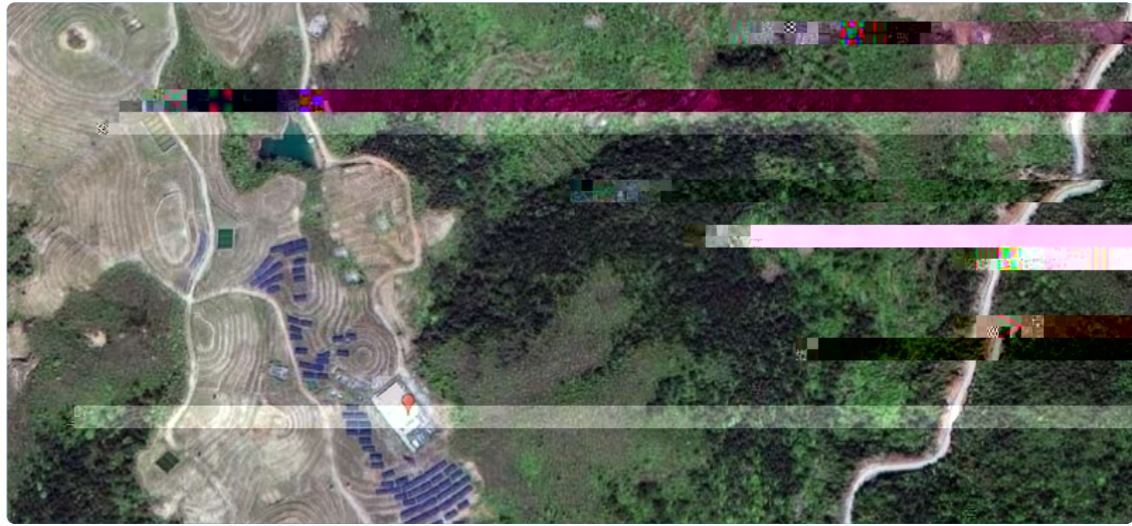
100.5MWh

2024	11	100.5MWh
	EPC	
	30	3.35MWh
15	PCS	
1	10kV	5
110kV	10kV	
	200	
3	CO ₂	



5.6MWh

2024	6			
3MW/5.6MWh		1	2.98MWhh	1
3MW PCS		1	35kV	1
240	kWh		120	

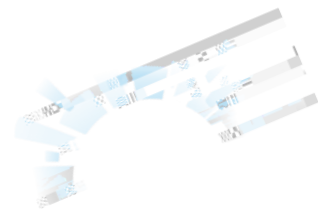



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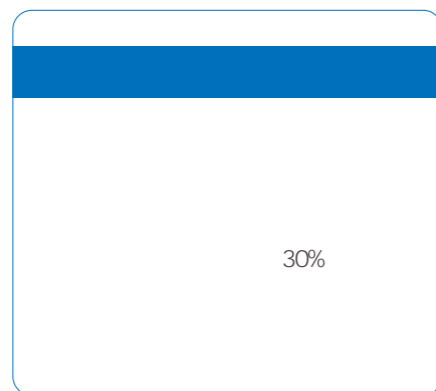
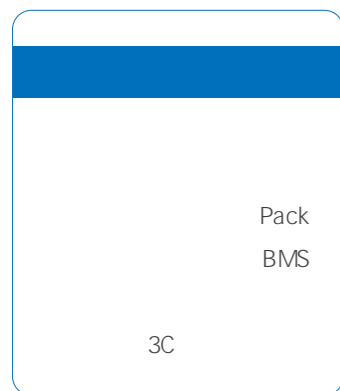


60

13

4

2024 TNPD



1,846

9.70%

2

1

4

26

3,592

907

16

9

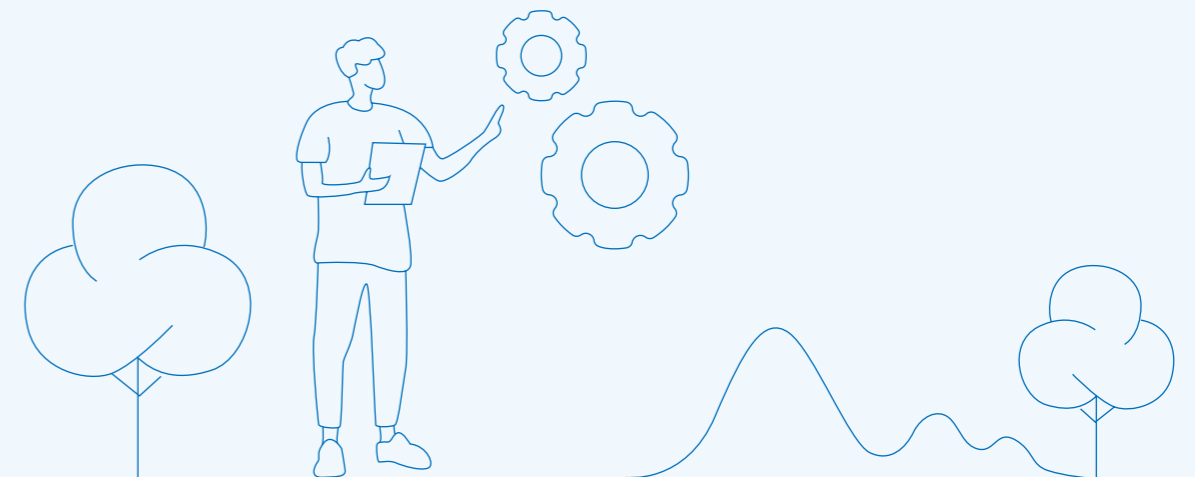
265

4

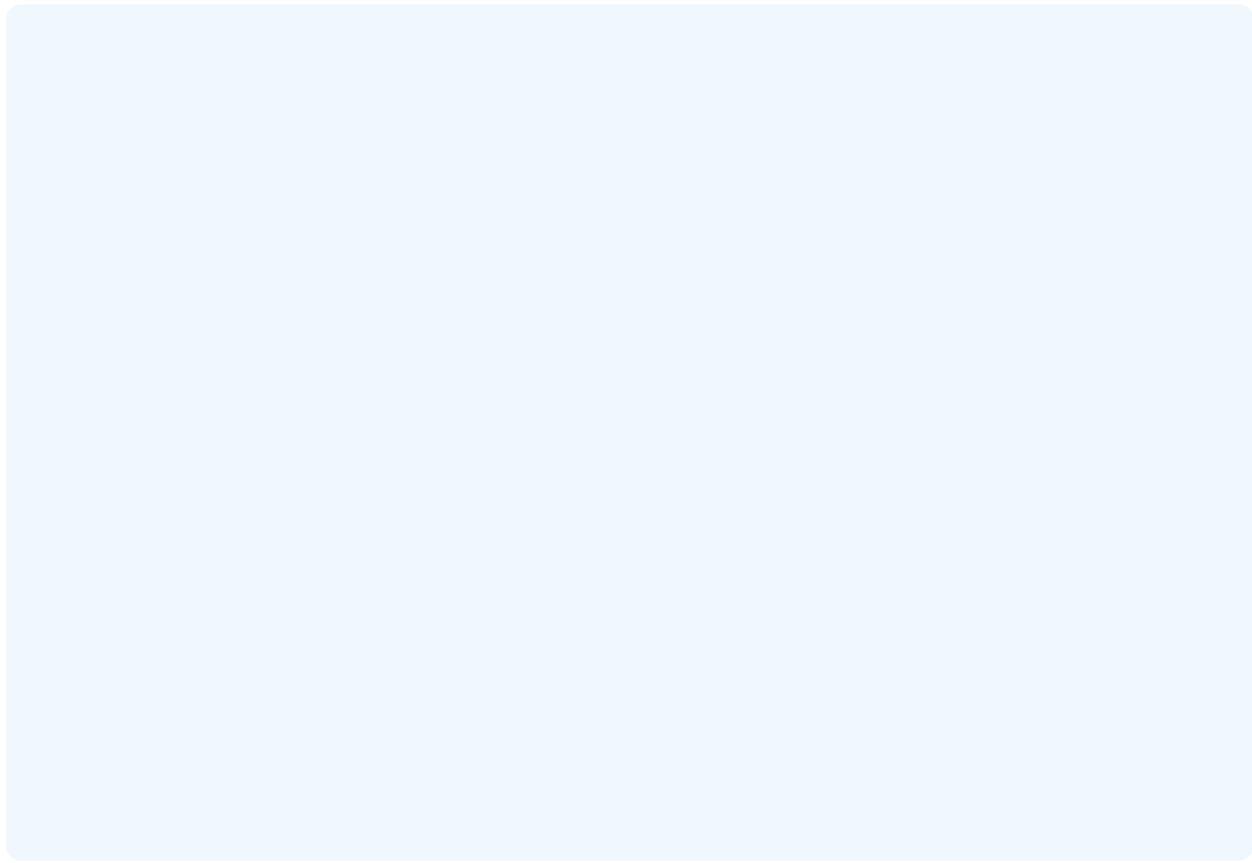
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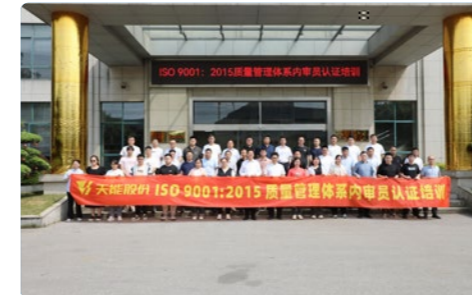
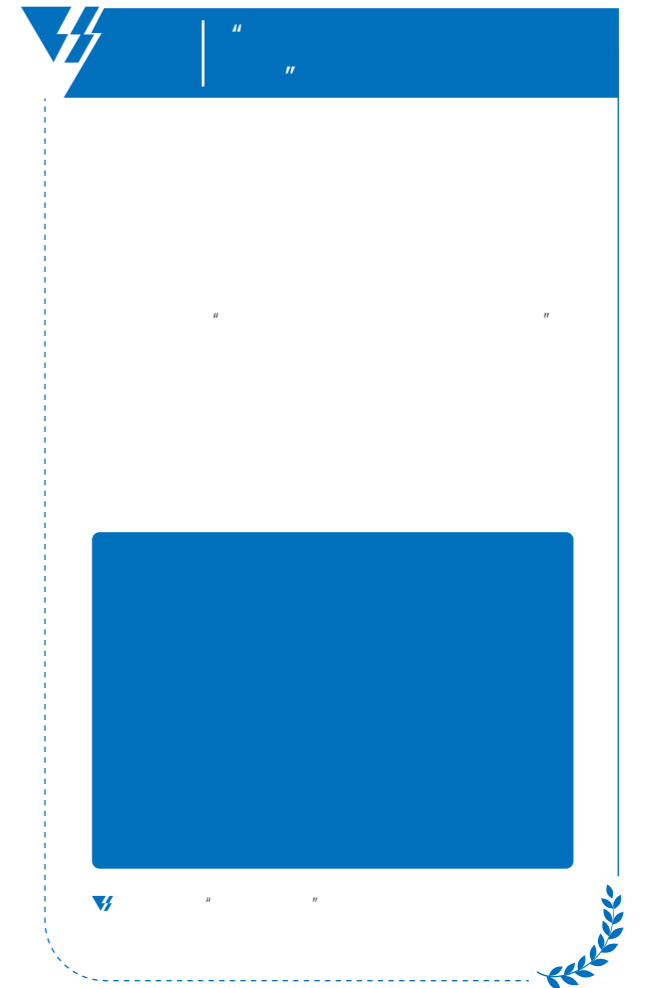
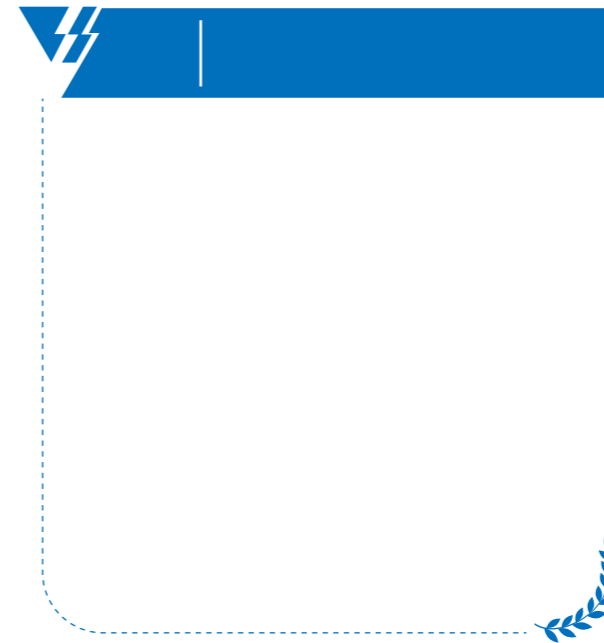
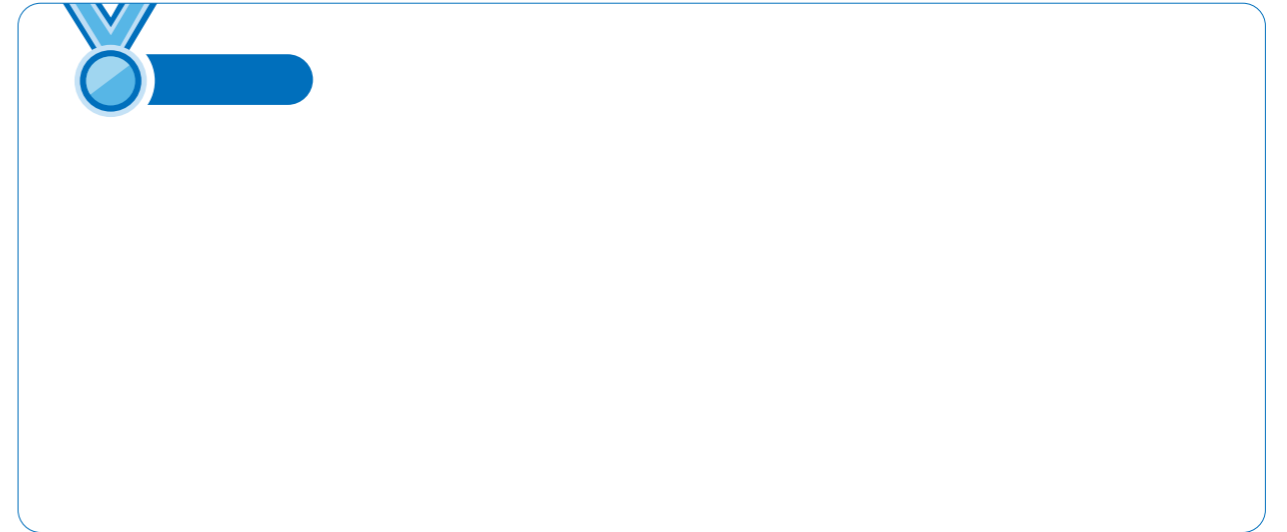
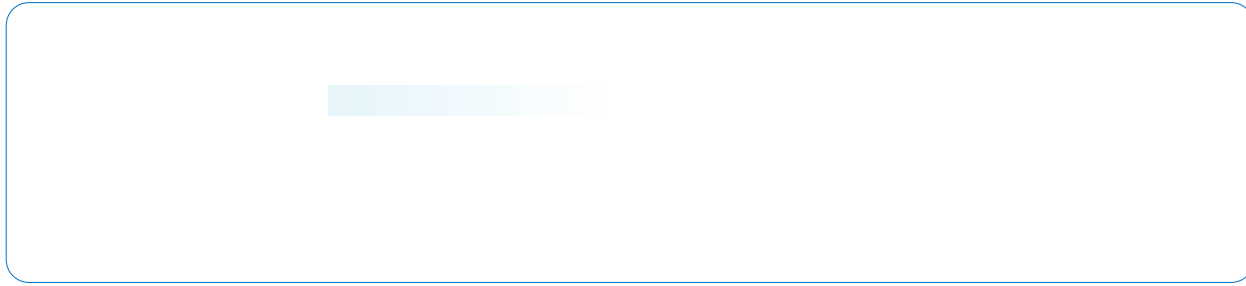
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106

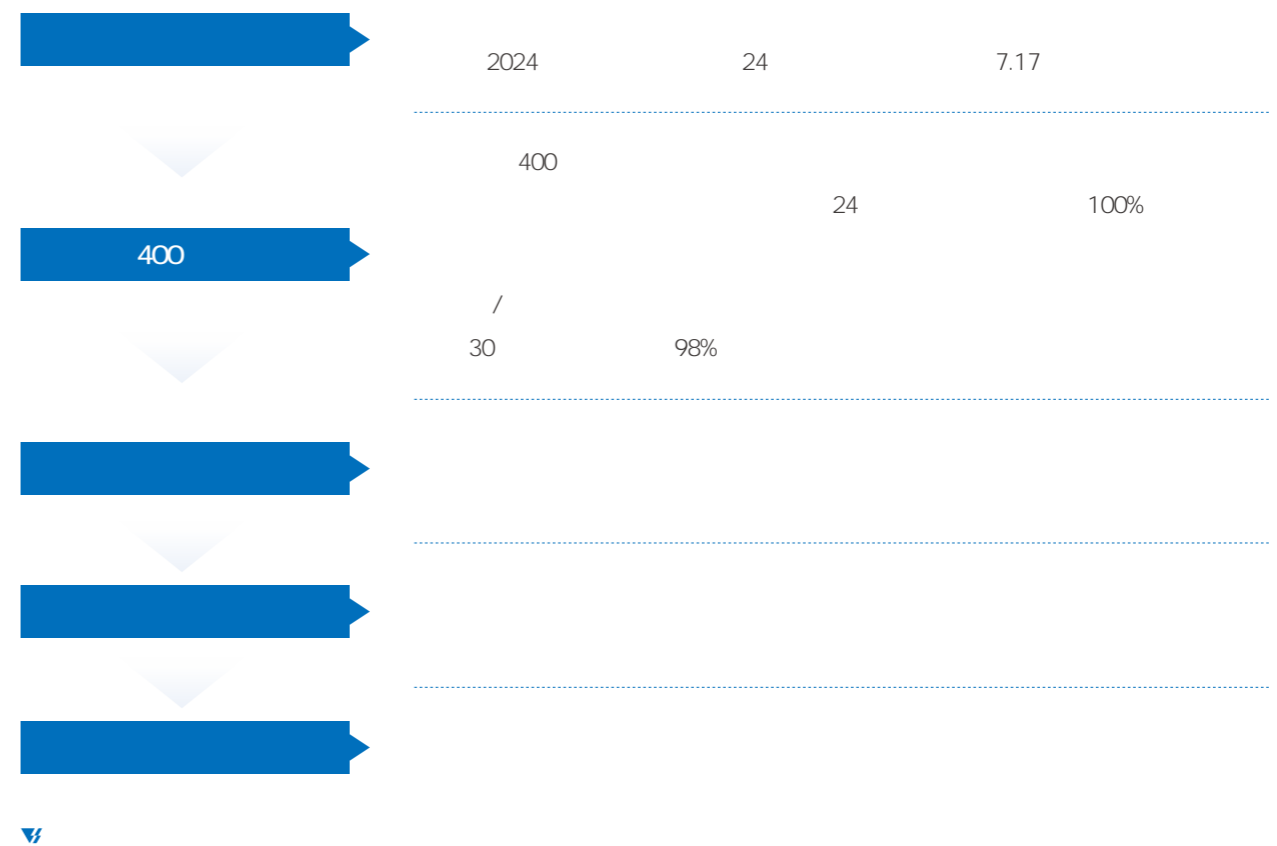
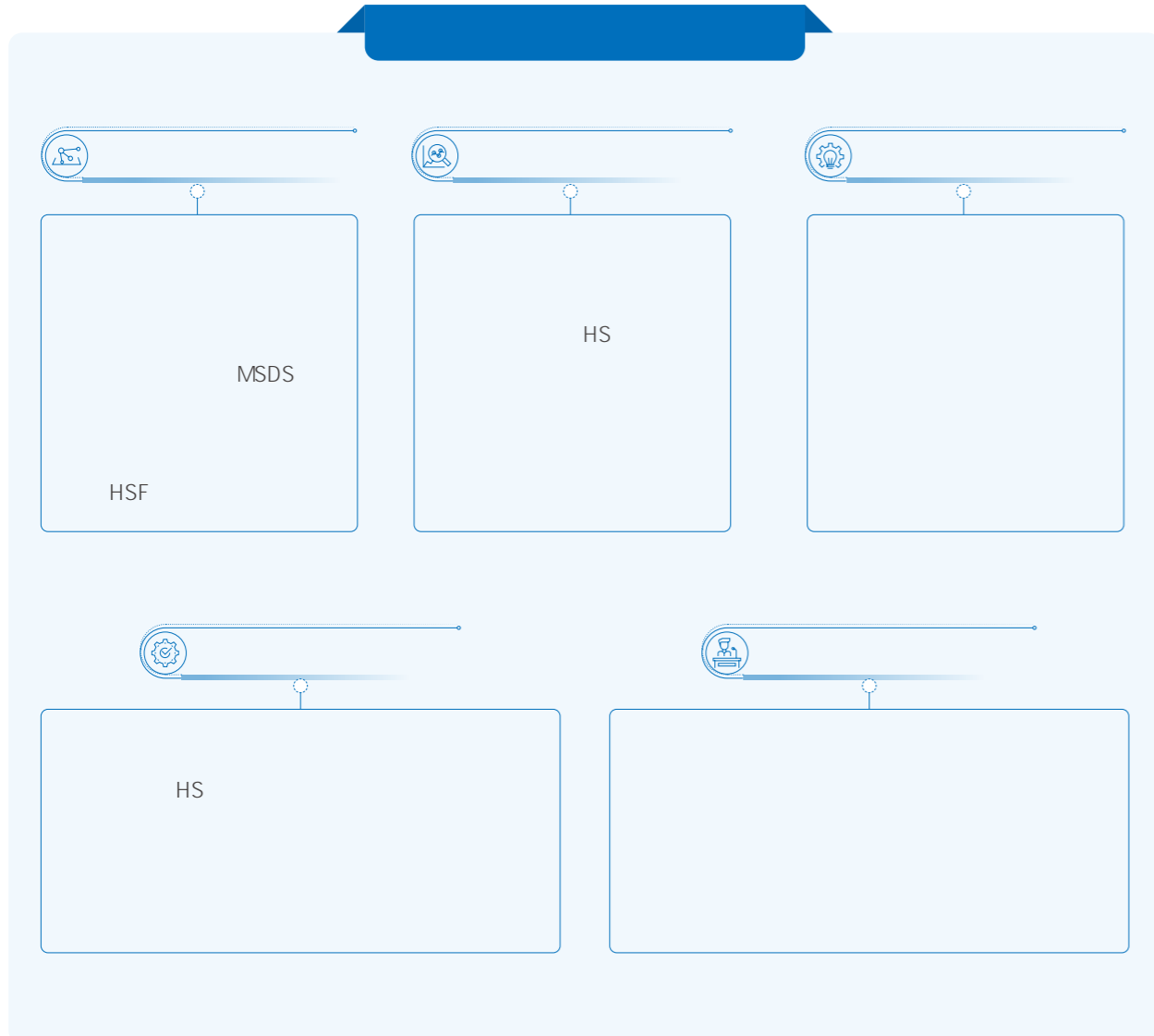
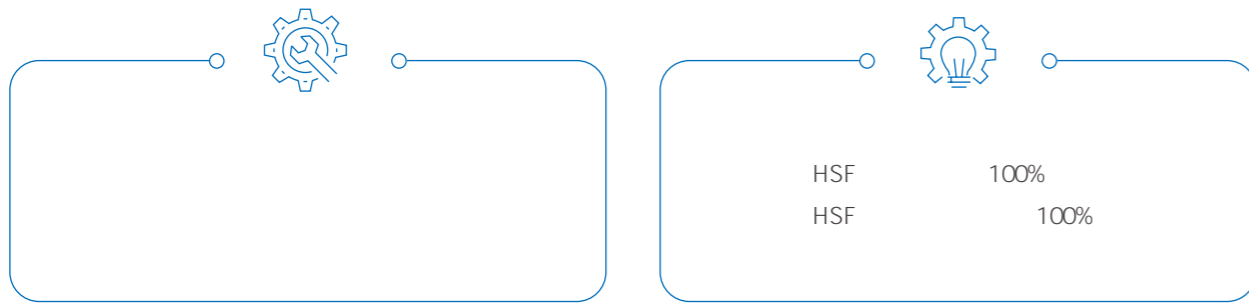


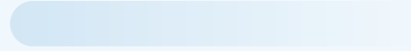
2024 7 12 " 2024



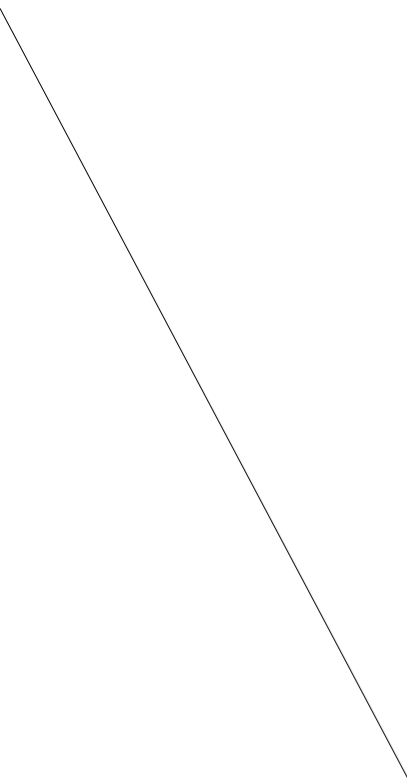
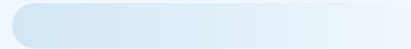


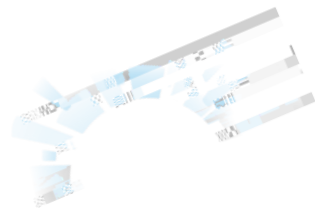
RoHS REACH
HSF





2024

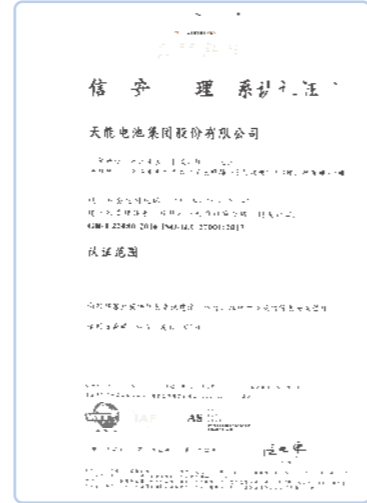




ISO 27001

18

9



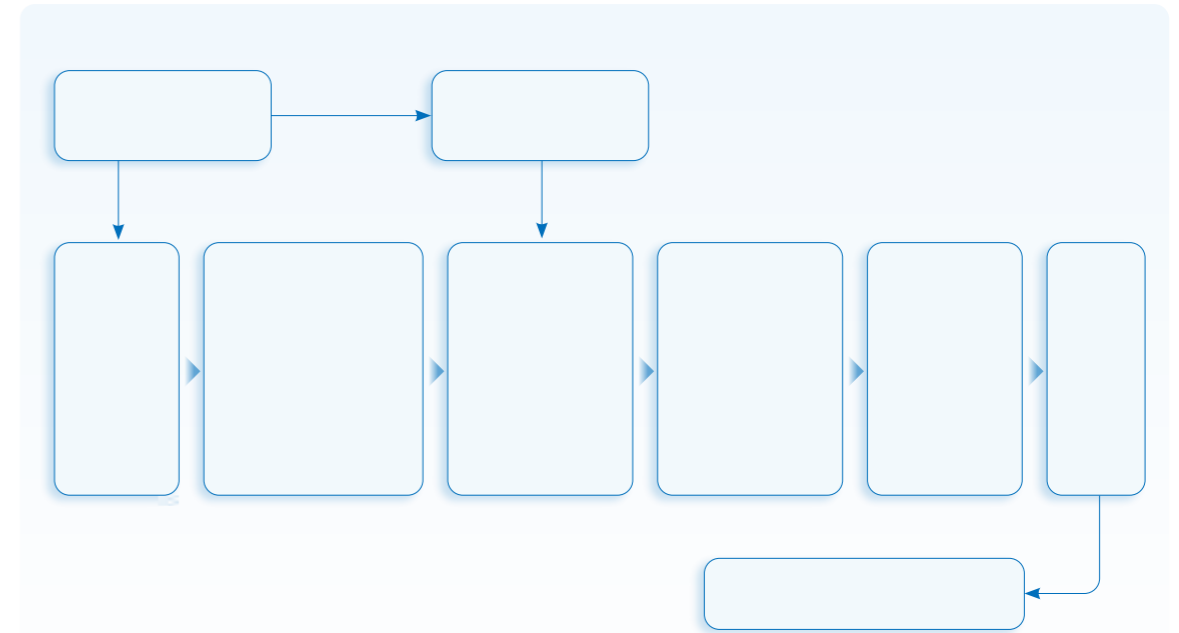
ISO 27001

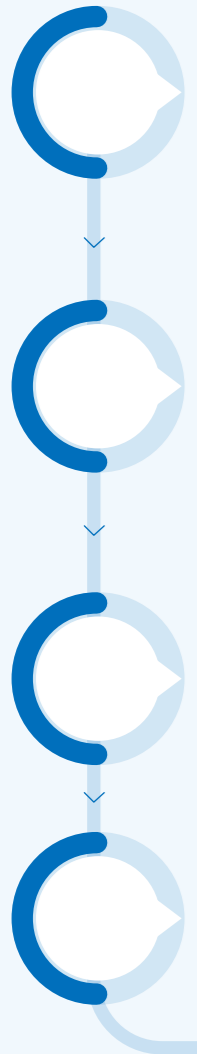
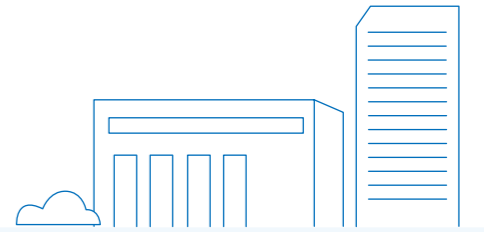
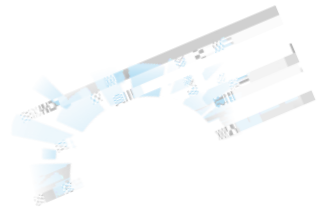
4

2



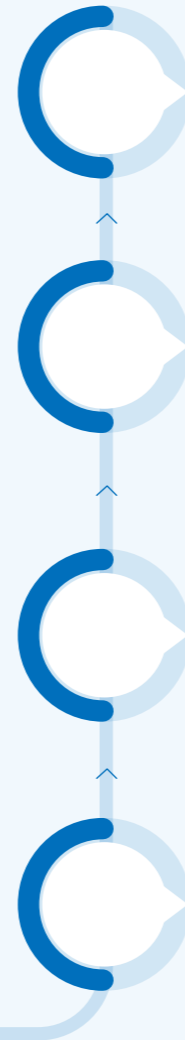
2024 9





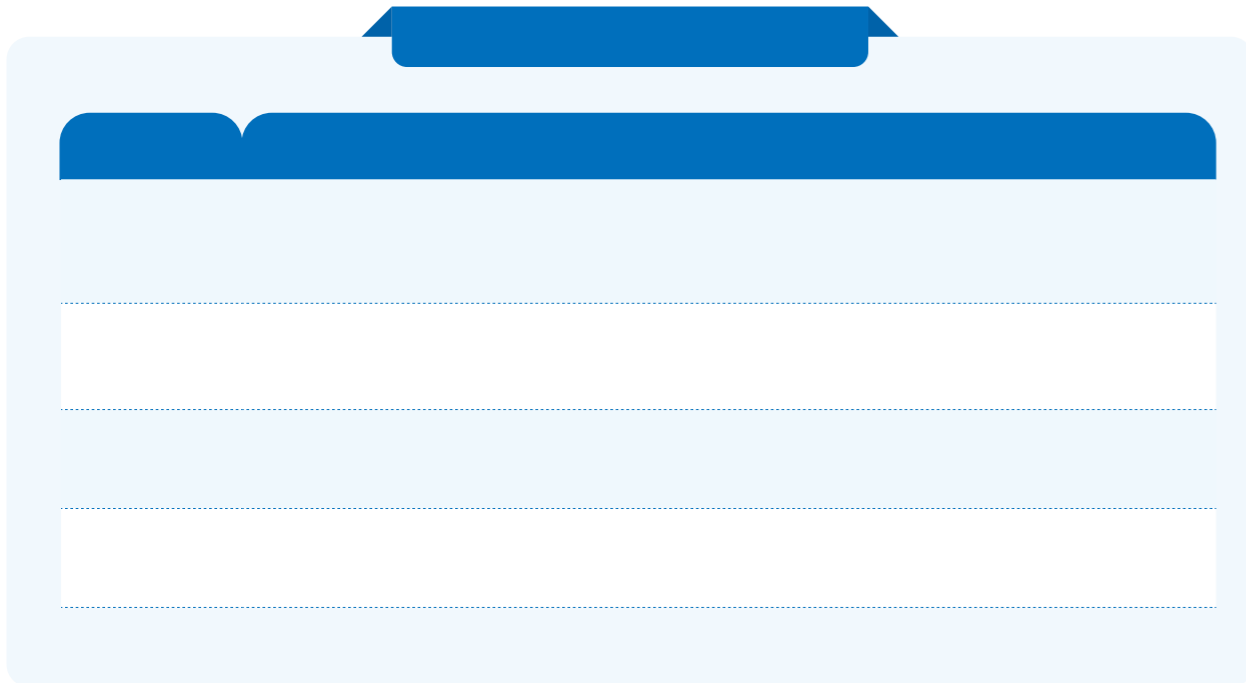
/

3



OA

OA



2021
50
100



2024

83%

95%

98.5%





555.44	1,361	
62	50	
165	67	56

2021 1 2024 2

16,266	131,585.64
2,620	1,867
	753

OMO

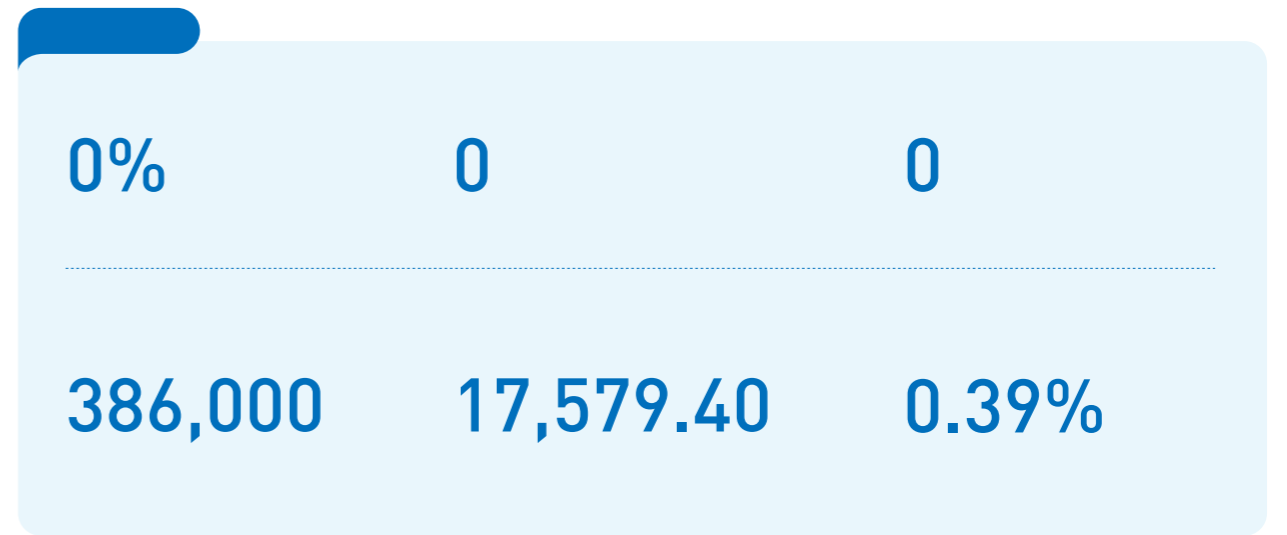
2024 5

2021 2023

84

2024

2024	0
	0



2024 2

20



400

13,315

100%

70

1,103

294

6,347

502

5,580

2,168

74,409

379

9,125

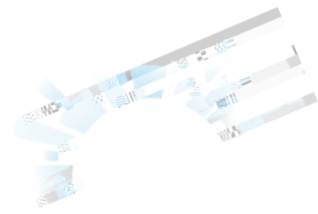
420

2



2024 11





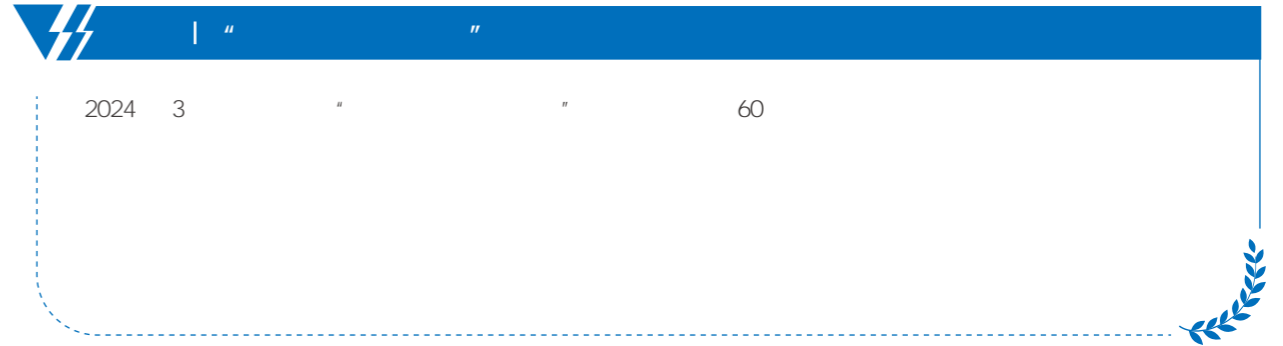
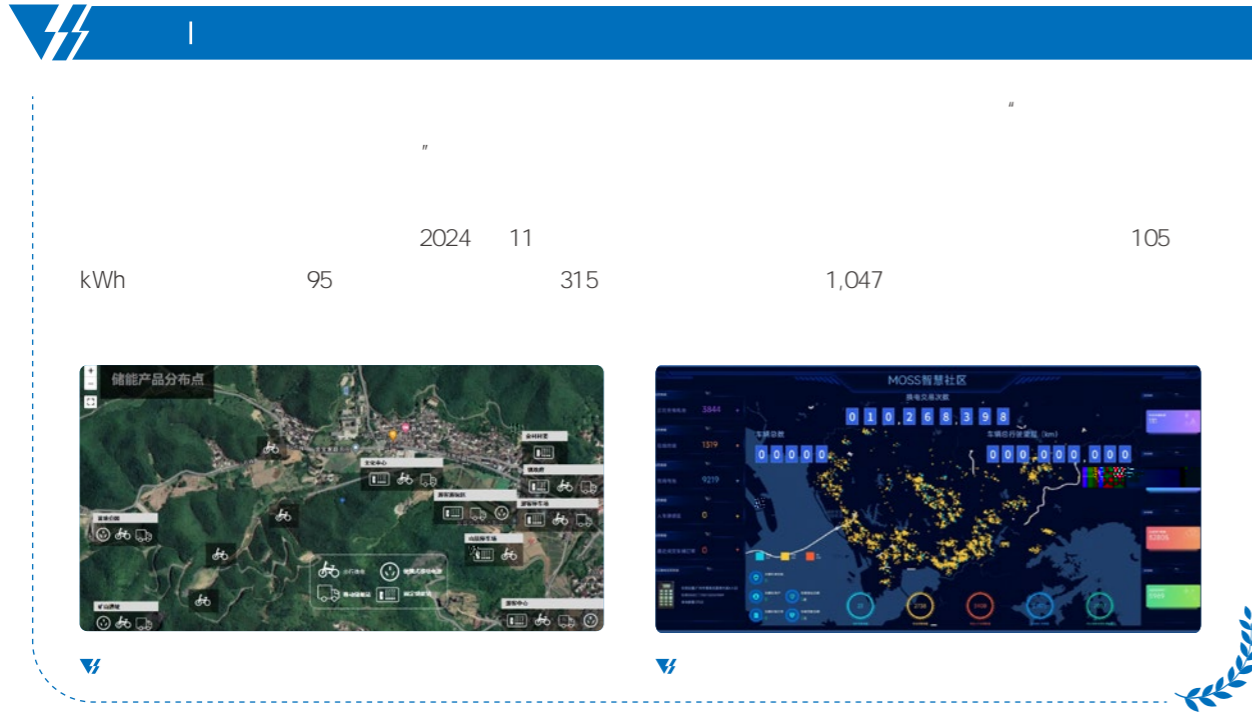
2024

2024



30



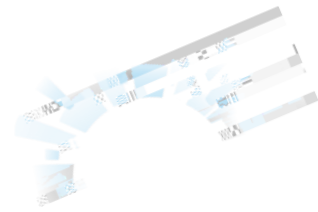


聚能共治

SDGs

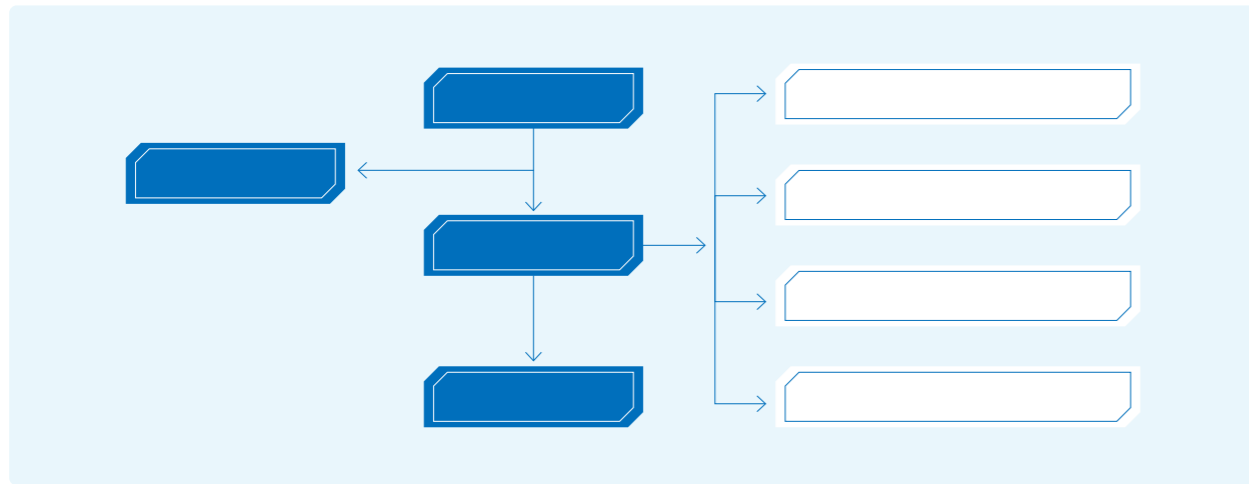
16 和平、正义与
强大机构





7

1 —



2

3

1

6

4

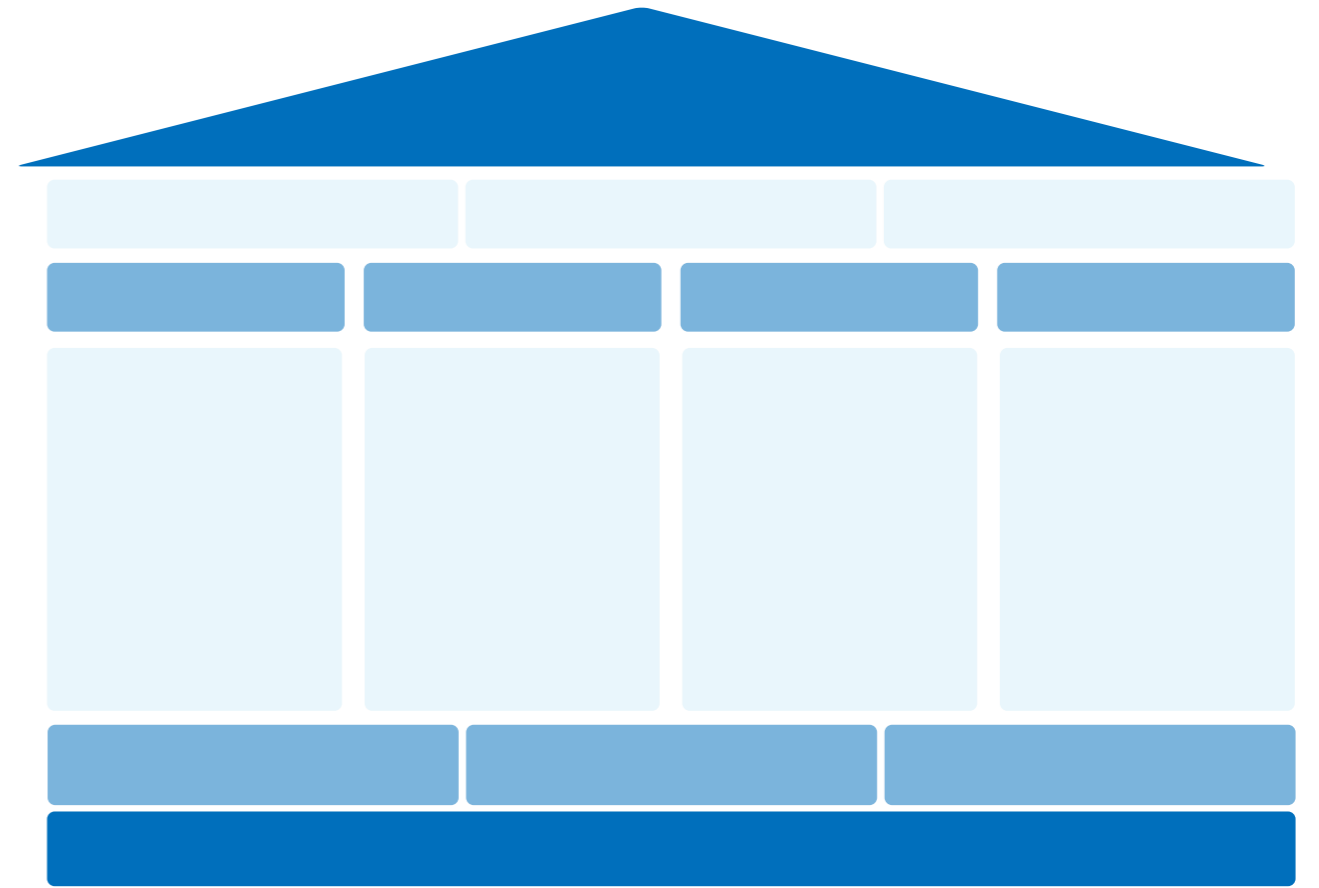
8
5
1
2
1

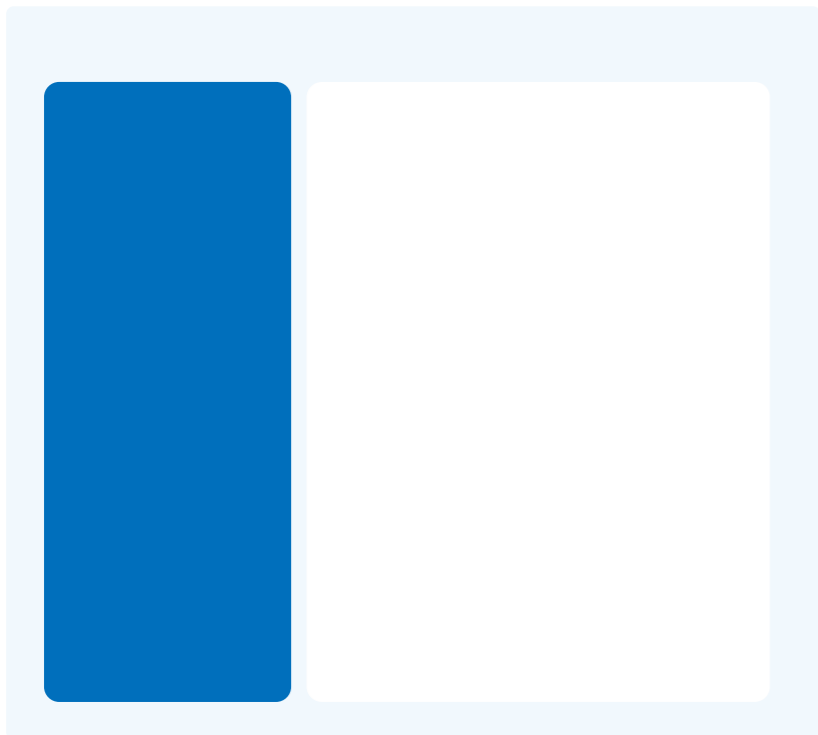
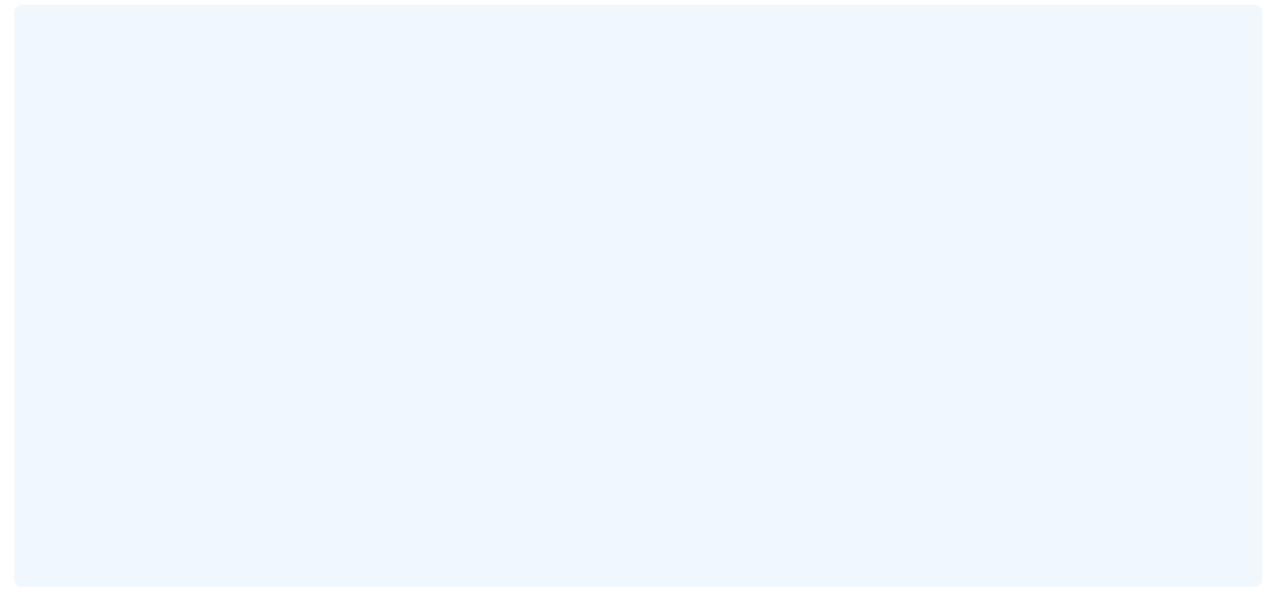
			/	/		/	/	
		✓			✓			63
		✓			✓			68
		✓			✓			55
		✓			✓			54
		✓			✓			56
		✓	✓		✓	✓		44
			✓			✓		70
			✓			✓		63
			✓			✓		55

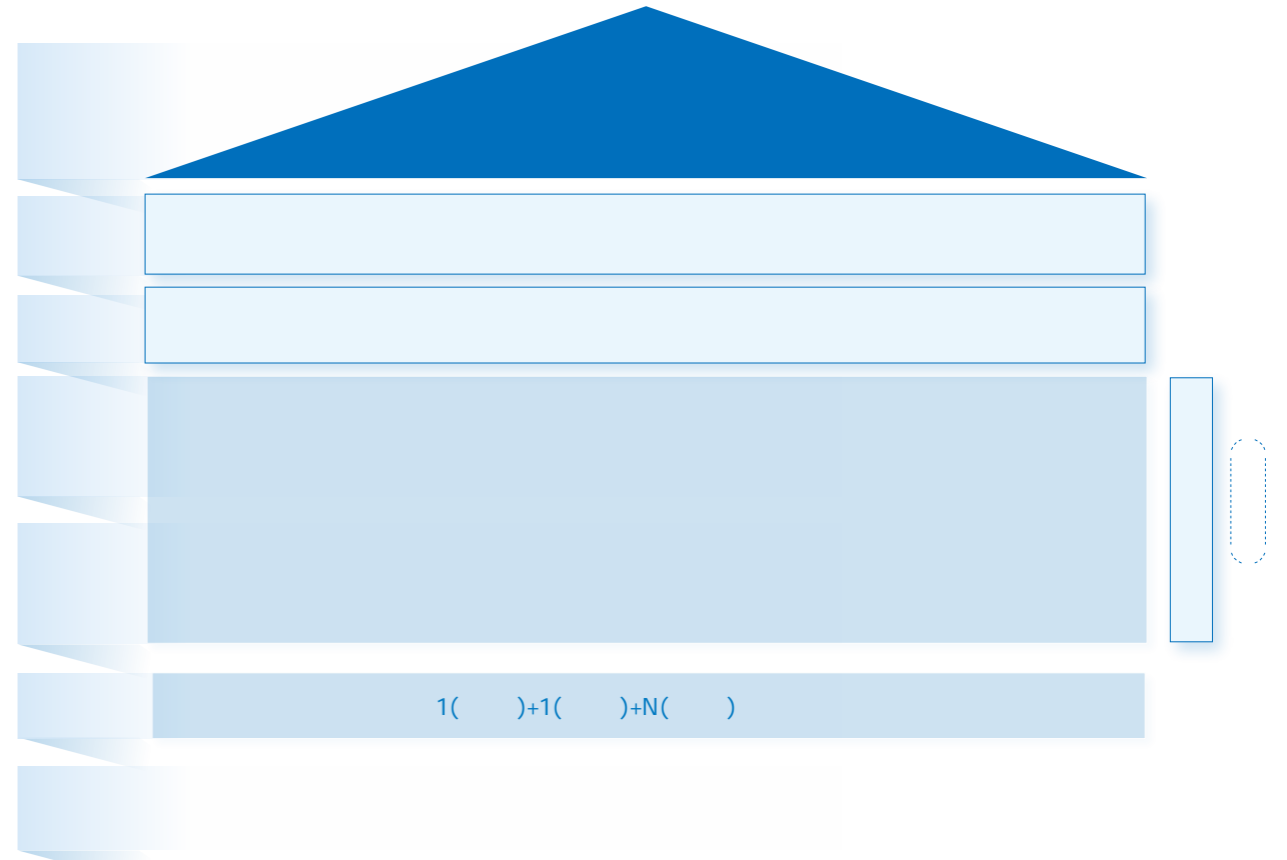
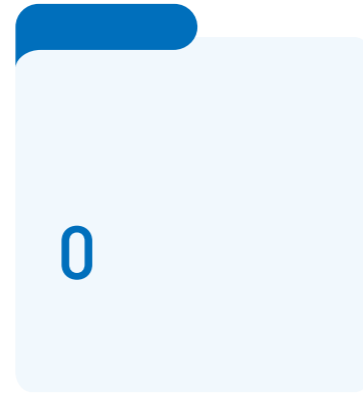




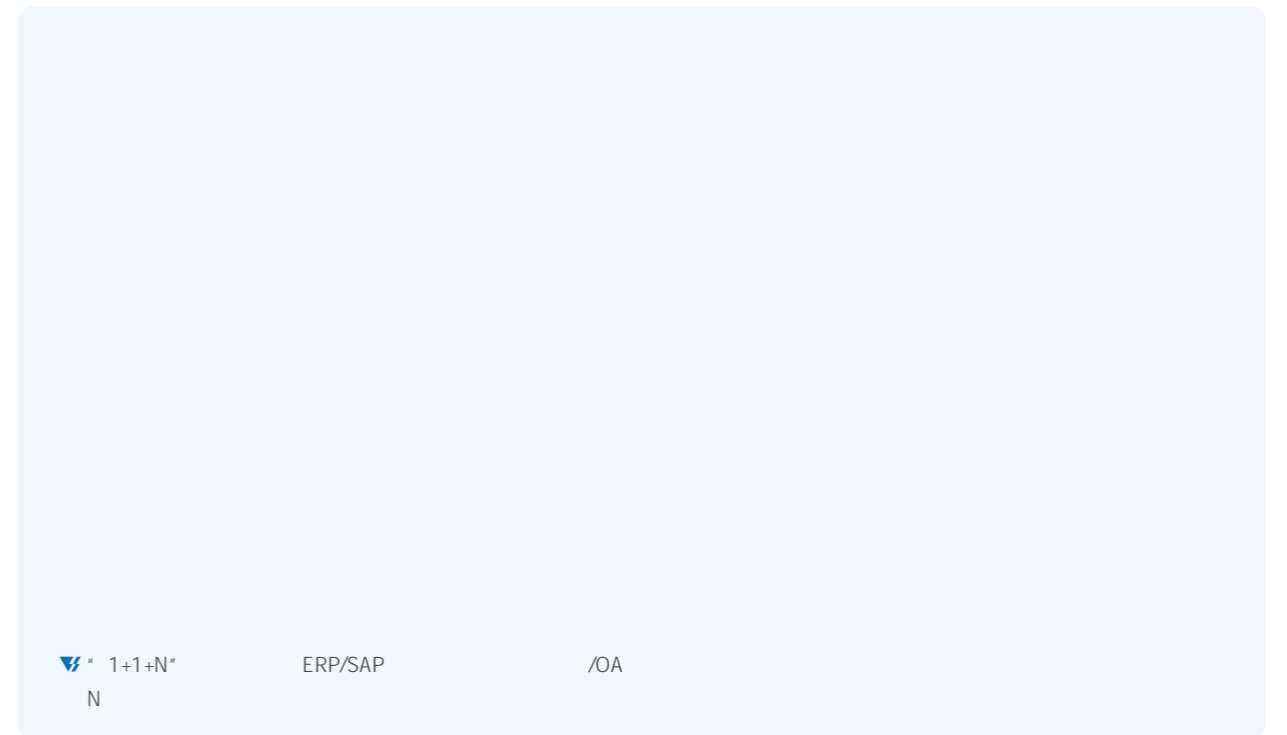
28	6
14	3







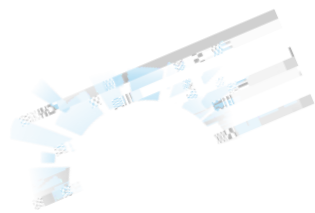
▼ " 1+1+N"



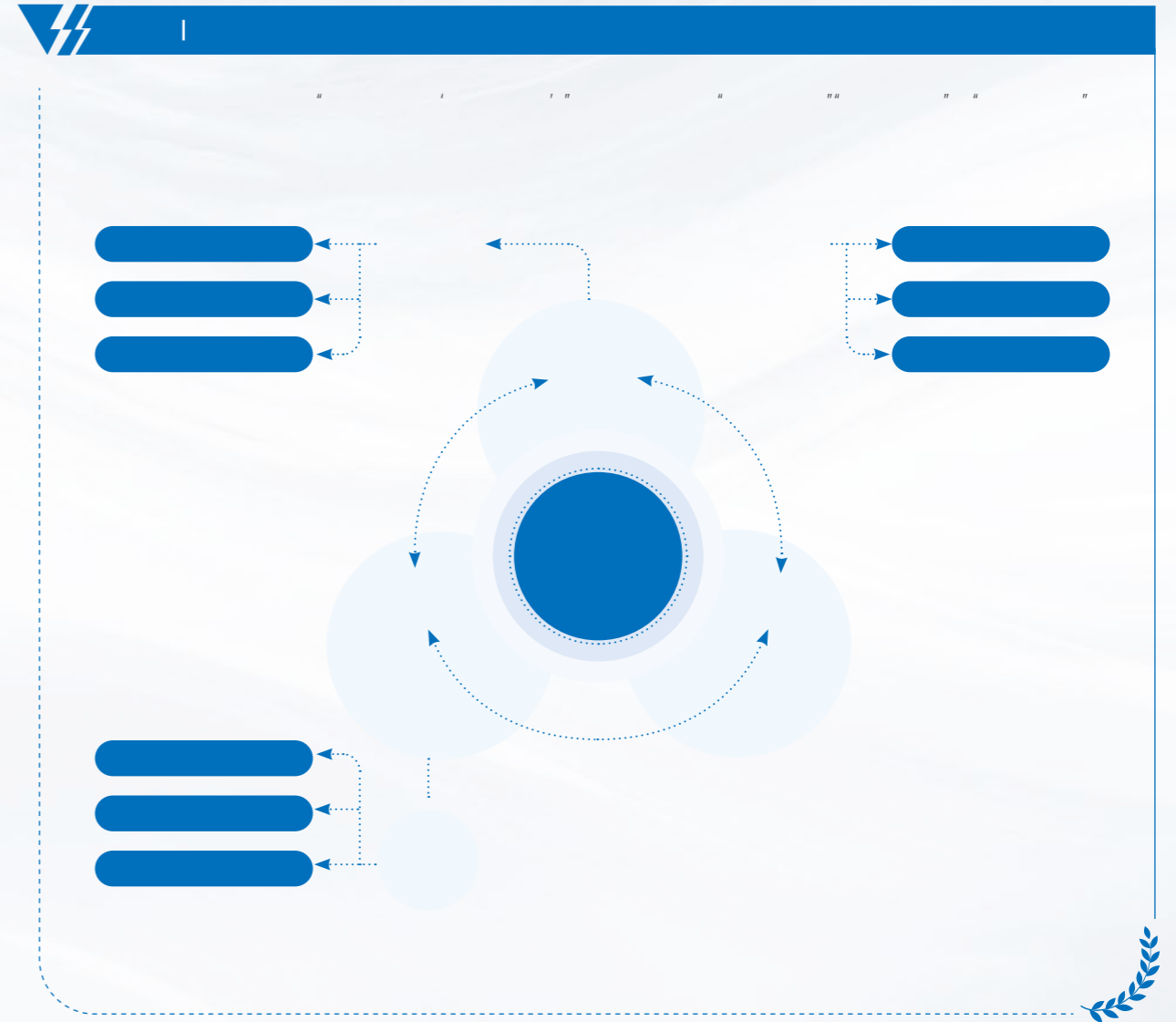
▼ " 1+1+N"
N

ERP/SAP

/OA



2023



2



4



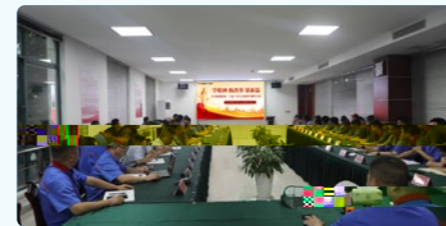
5



6



8

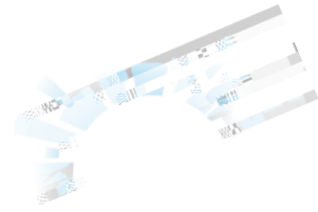


9



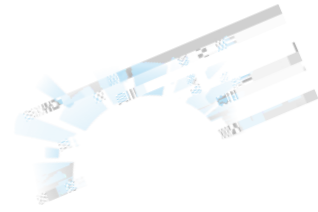
11





		2024
		4,504,179.23
		155,451.21
		4,428,796.39
		330,757.55
	%	100
		98
		22.8
		110.22
		187,542.87
	%	4.16
		1,846
	%	9.70
		193
		148
		3,592
		77
	%	100
	%	27.03
	%	98.68
	%	100
		1,520
		100,775
		98.7
		19,022
	%	63.44
	%	36.56
30	%	12.21
30 50	%	72.14

		2024
50	%	15.65
		17,579.40
		1,126.90
	%	100
		0
	%	0
		386,000
		1,361
		555.44
		6,296.79
		101,175
		3,705,555
		3,806,730
	+	
	+	/
		0.85
		543,580
		55,561
		413,410
		64,156
		663
		353
		9,437
		811.85
	%	90
	%	60



GRI

	2024	GRI	GRI
GRI 1	GRI 1:	2021	

GRI			
		2-1	
		2-2	
		2-3	
		2-4	
		2-5	/
		2-6	
		2-7	
		2-8	/
		2-9	ESG
		2-10	
		2-11	
		2-12	ESG
		2-13	ESG
		2-14	ESG
GRI 2:	2021	2-15	
		2-16	
		2-17	
		2-18	
		2-19	
		2-20	
		2-21	/
		2-22	
		2-23	
		2-24	
		2-25	
		2-26	
		2-27	
		2-28	
		2-29	
		2-30	/

GRI			
		3-1	
GRI 3:	2021	3-2	
		3-3	
		201-1	
GRI 201:	2016	201-2	
		201-3	
		201-4	
GRI 202:	2016	202-1	/
		202-2	/
GRI 203:	2016	203-1	
		203-2	
GRI 204:	2016	204-1	/
		205-1	
GRI 205:	2016	205-2	
		205-3	
GRI 206:	2016	206-1	
		207-1	
GRI 207:	2019	207-2	
		207-3	
		207-4	
GRI 301:	2016	301-1	
		301-2	
		301-3	
GRI 302:	2016	302-1	
		302-2	
		302-3	
		302-4	
		302-5	
GRI 303:	2018	303-1	
		303-2	
		303-3	/
		303-4	
		303-5	
		304-1	
GRI 304:	2016	304-2	
		304-3	/
		304-4	/
		IUCN	

GRI				
GRI 305:	2016	305-1	1	
		305-2	2	
		305-3	3	
		305-4		
		305-5		
		305-6	ODS	/
		305-7	NOX SOX	
GRI 306:	2020	306-1		
		306-2		
		306-3		
		306-4		
		306-5	/	
GRI 308:	2016	308-1		
		308-2		
GRI 401:	2016	401-1	/	
		401-2		
		401-3		
GRI 402:	2016	402-1	/	
		403-1		
GRI 403:	2018	403-2		
		403-3		
		403-4	/	
		403-5		
		403-6		
		403-7		
		403-8		
		403-9		
		403-10		

GRI			
GRI 404:	2016	404-1	
		404-2	
		404-3	/
GRI 405:	2016	405-1	
		405-2	/
GRI 406:	2016	406-1	
GRI 407:	2016	407-1	/
		408-1	
GRI 408:	2016	408-1	
GRI 409:	2016	409-1	
		410-1	/
GRI 410:	2016	410-1	
GRI 411:	2016	411-1	
		413-1	
GRI 413:	2016	413-2	
		414-1	
GRI 414:	2016	414-2	/
		415-1	/
GRI 415:	2016	415-1	
GRI 416:	2016	416-1	
		416-2	
GRI 417:	2016	417-1	
		417-2	
		417-3	
GRI 418:	2016	418-1	



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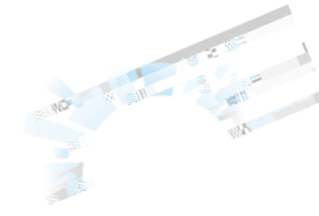
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ESG

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ESG 2024 ESG

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

ESG

Two horizontal lines for text input.

